Extended Simulation Package

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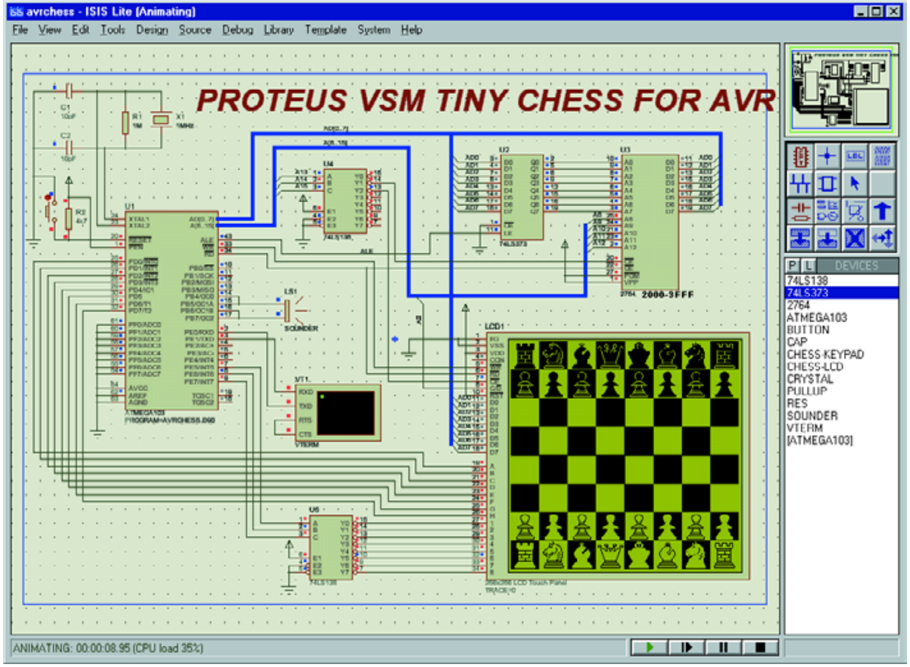
avrchess - ISIS Lite (Animating)
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Simulation programs are often used in developing electronic circuits. They allow a variety of versions to be quickly tested and enable design errors to be detected at an early stage, even before a prototype has been built. Depending on the particular simulation package, the results can be viewed in the form of diagrams or even using virtual instruments.

However, most simulation programs have trouble simulating microcontrollers. If a microcontroller (with its associated software) is present in the circuit, most simulation packages fail. A pleasant exception to this situation is provided by the ISIS simulation package from our advertiser Labcenter Electronics. This program can simulate a variety of microcontrollers in electronic circuits. In addition to the tools commonly found in simulation packages, it thus includes debuggers for several types of microcontrollers, including the 8051/AVR/HC11 family and PIC microcontrollers. This software package also includes several components typically found in microcontroller applications, such as 7-segment displays, a keypad and (graphic) LCDs. These components can be operated using the mouse during the simulation, allowing the user interface to also be tested in the simulation package! GALs and PALs are also supported. Naturally, the program can also simulate ‘normal’ electronic circuits.

The supplied examples are more than worth looking at. They range from simple, standard electronic circuits, such as a transistor amplifier and oscillators, to microcontroller applications, such as a clock and even a chess computer with a touch screen! One of the noteworthy features of the simulations is their execution speed. Most of the microcontroller simulations could be run at real time on a PC with an AMD Athlon 900-MHz processor!

An evaluation version of the program can be downloaded from http://www.labcenter.co.uk. The restrictions of the evaluation version are that the circuits cannot be saved or printed. The ‘schematic in schematic’ option is also not available in the evaluation version. Otherwise, it is fully usable.

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